

# ISO 20418-2:2018 (E)

## Textiles — Qualitative and quantitative proteomic analysis of some animal hair fibres — Part 2: Peptide detection using MALDI-TOF MS

---

### Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Abbreviated terms
5	Principle
6	Reagents
7	Apparatus
8	Test methods
8.1	Sample preparation
8.2	Protein extraction
8.3	Partial purification of extracted proteins using SDS-PAGE
8.4	Trypsin digestion of the extracted proteins
8.5	MALDI-TOF MS analysis of the tryptic peptides
8.6	Calculation of the weight percentages
8.7	Calibration curves
8.8	Calculation of the content (%) of each animal hair in binary mixtures
8.9	Calculation of the content (%) of each animal hair in ternary mixtures
9	Precision
10	Interlaboratory trial
11	Test report
Annex A	(informative) Example of SDS-PAGE image of extracted proteins
A.1	General
A.2	Cut of the SDS-PAGE gel
Annex B	(informative) Animal species-specific peaks in MALDI-TOF MS analysis
B.1	General
B.2	Animal species-specific marker
Annex C	(informative) Animal species-specific peaks in MALDI-TOF MS analysis
Annex D	(informative) Calibration curve for the cashmere-wool blend
D.1	Samples
D.2	Preparation of calibration curves
Annex E	(informative) Calibration curve for the cashmere-yak blend
E.1	Samples
E.2	Preparation of calibration curves

**Annex F (informative) Repeatability and reproducibility**

- F.1 Samples**
- F.2 Repeatability**
- F.3 Reproducibility**

**Annex G (informative) Analysis of blind test samples using MALDI-TOF MS method**

**Annex H (informative) Results of interlaboratory trial**

- H.1 Participants**
- H.2 Samples**
- H.3 Test result**

**Page count: 23**